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PHOTOGRAPHIC INTERPRETATION REPORT

PROBABLE SOLID PROPELLANTS TEST FACILITY AND ASSOCIATED PRODUCTION FACILITIES, KAMENSK-SHAKHTINSKIY, USSR

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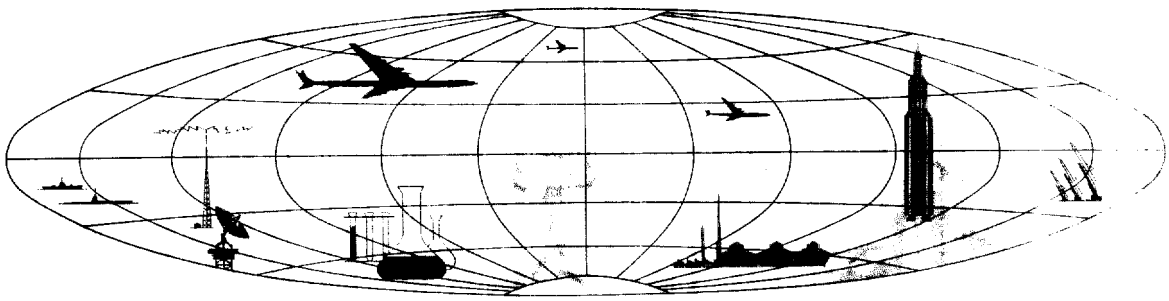

PROBABLE SOLID PROPELLANTS TEST FACILITY AND ASSOCIATED PRODUCTION FACILITIES, KAMENSK-SHAKHTINSKIY, USSR

INTRODUCTION

The purpose of this report is to present descriptions of the Kamensk-Shakhtinskiy Probable Solid Propellants Test Facility and various associated production facilities including Chemical Combine No 101, a nearby Suspect Solid Propellants Manufacturing Area, and an Explosives Storage Area.

The Kamensk-Shakhtinskiy Probable Solid Propellants Test Facility is located at 48-18N 40-12E. It is in the western extremity of Chemical Combine No 101 (BE [redacted] which is approximately 3 nautical miles (nm) southwest of the railroad bridge which crosses the Severnyy River in the city of Kamensk-Shakhtinskiy, USSR (Figure 1). The Suspect Solid Propellants Manufacturing Area and the Explosives Storage Area are about 1 nm southwest of the test facility.

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PROBABLE SOLID PROPELLANTS TEST FACILITY

The Probable Solid Propellants Test Facility is located within the western boundaries of Chemical Combine No 101 (Figures 2, 4, and 5). It is served by the road network within the secured area; the railroad which serves Chemical Combine No 101 does not presently extend into the test area.

The primary component of the test facility is a test cell which consists of a firing bay (item 12, Figure 5) and an earthen blast deflector. These are located in the southwest corner of the secured area. The test cell, or firing bay, is L-shaped. The probable firing portion occupies the long side of the L and consists of 2 sections; the rear section (nearest the base of the L) is wider and higher than the forward section (nearest the blast deflector). The short side

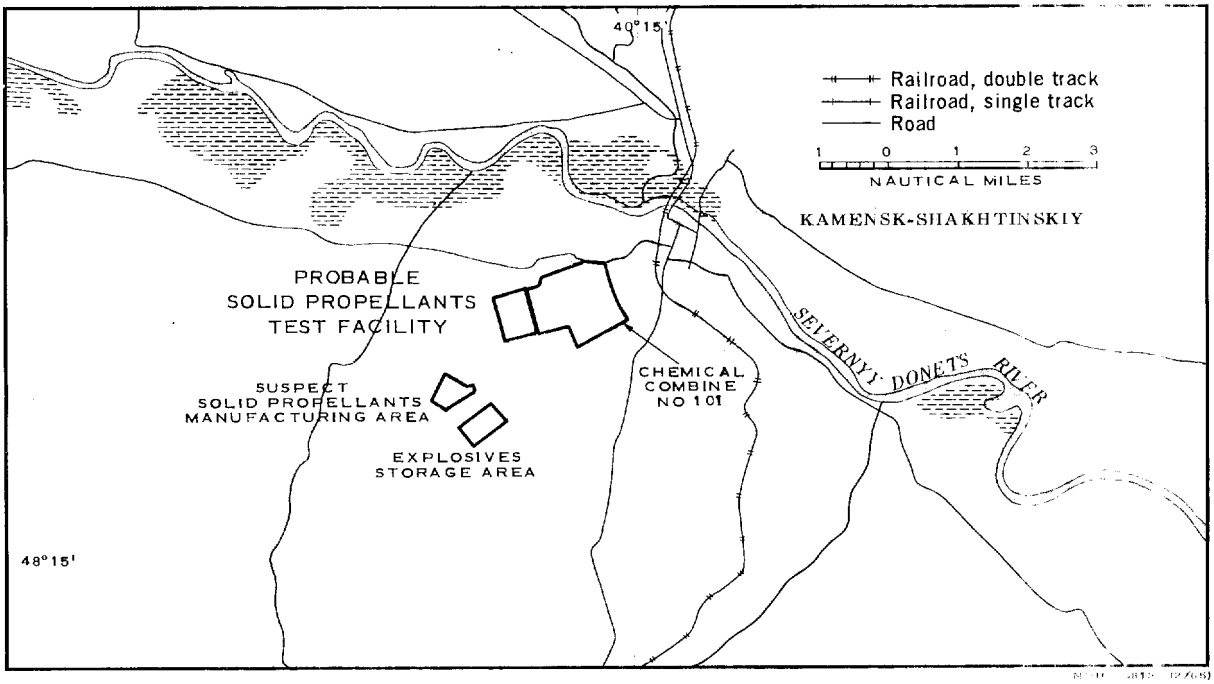

FIGURE 1. LOCATION MAP.

of the L probably houses instrumentation. The side of the blast deflector facing the firing bay is probably hard surfaced for deflecting horizontal blasts. About 700 feet to the rear of the firing bay is a large, tall, rectangular building (item 10), identified as a possible checkout building, which may house at least some of the functions of H-shaped buildings observed at other probable solid propellant test facilities in the USSR. Another large but not as tall rectangular building (item 9) is located in the southeastern corner of the test area. Flanking the rear of the test cell are 4 small buildings situated in cuts which place them below the level of the surrounding terrain and are thus, in effect, revetted.

Of primary interest in the northern part of the test area is a group of 5 offset buildings (items 1 and 2) similar to those observed in association with other Soviet probable solid propellants test facilities at Biysk, Perm, Krasnoyarsk, and Sterlitamak. These offset buildings are believed to function as temperature-conditioning facilities for solid propellant rocket

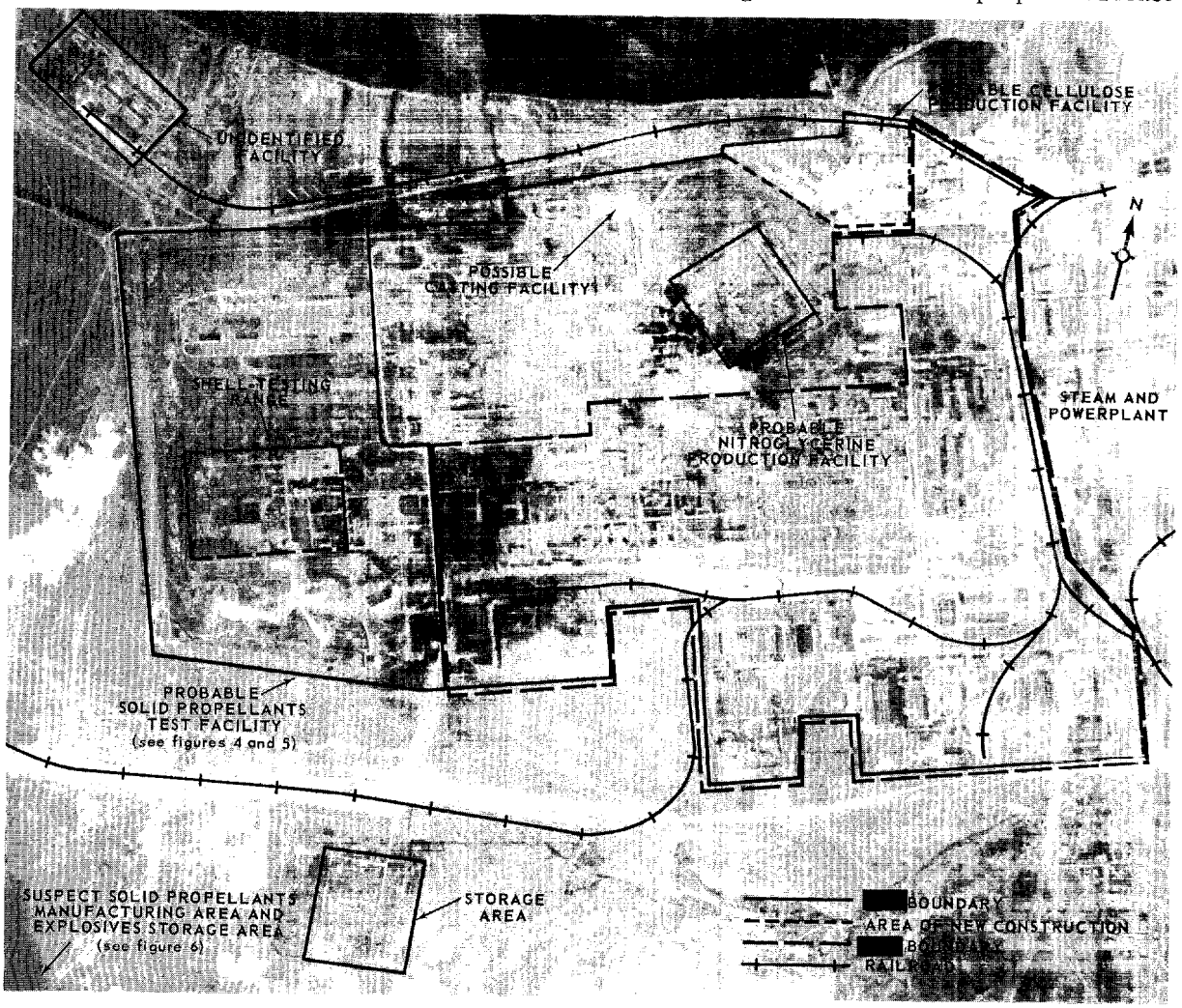

FIGURE 2. CHEMICAL COMBINE NO 101 NEAR KAMENSK-SHAKHTINSKIY, USSR, [redacted] NPIC J-8140 (Z/65)

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motors. Near the offset buildings are two large support/storage buildings (items 3 and 4).

In the central part of the test area is a shell-testing range which was in existence before the structures constituting the Probable Solid Propellants Test Facility were built. A perspective drawing of the test facility is shown on Figure 3.

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25X1D

The test facility was not present on [redacted] although Chemical Combine No 101 and the shell-testing range were in existence at that time. It was first seen on photography of [redacted] (Mission [redacted] at which time it consisted of the test cell with its blast deflector, two large support/storage buildings, and 5 small storage buildings, 3 of which are situated in cuts. The possible checkout building (item 10) was first seen on photography of [redacted] revealed that the group of 5 offset buildings and 1 support building has been added. The only change noted a year later, [redacted] (Mission [redacted] was the presence of a faint blast mark on the test cell apron and the addition of one large rectangular building (item 9). No changes were observed on photography of [redacted] (Mission [redacted]

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CHEMICAL COMBINE NO 101

In [redacted] the Kamensk-Shakhtinskiy Chemical Combine No 101 appeared to be a large integrated plant with facilities to produce chemicals, explosives, and ammunition. The area occupied by

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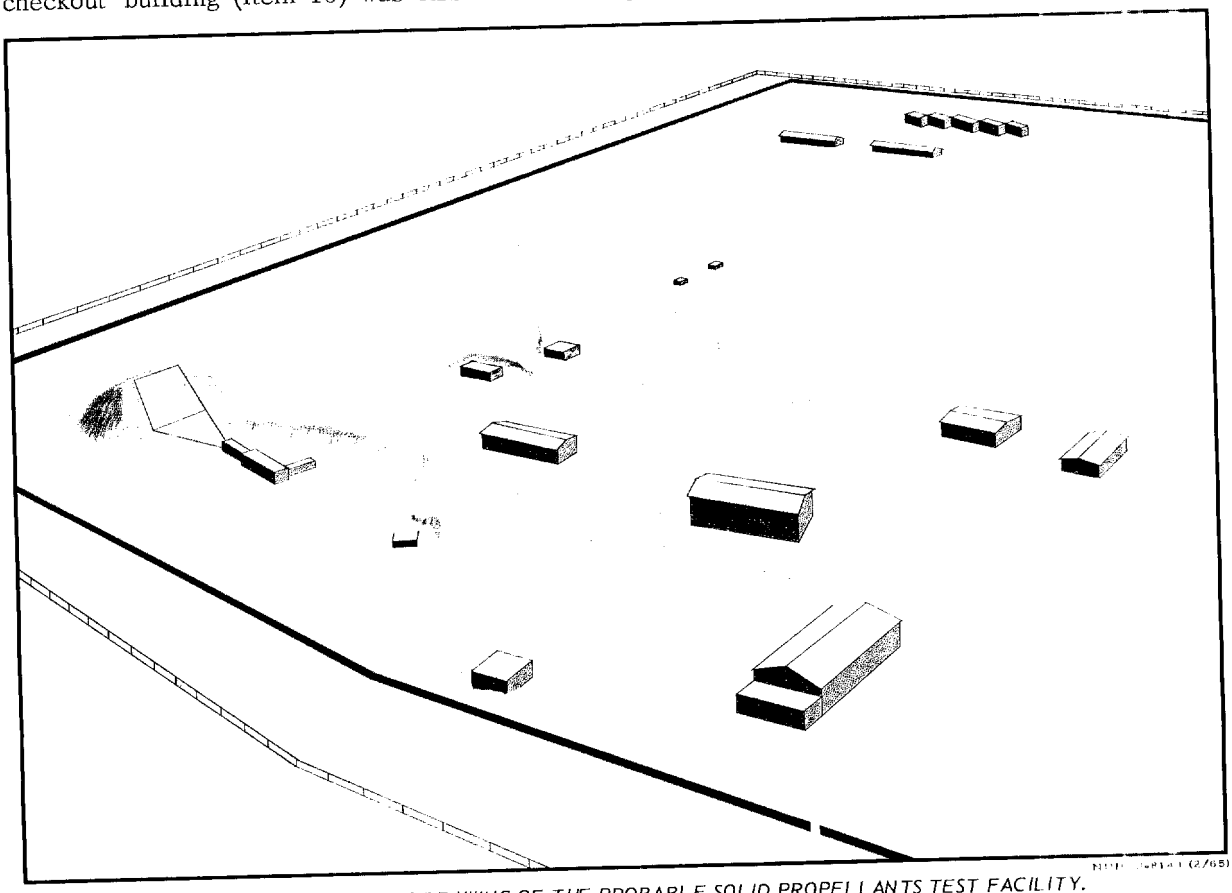

FIGURE 3. PERSPECTIVE DRAWING OF THE PROBABLE SOLID PROPELLANTS TEST FACILITY.

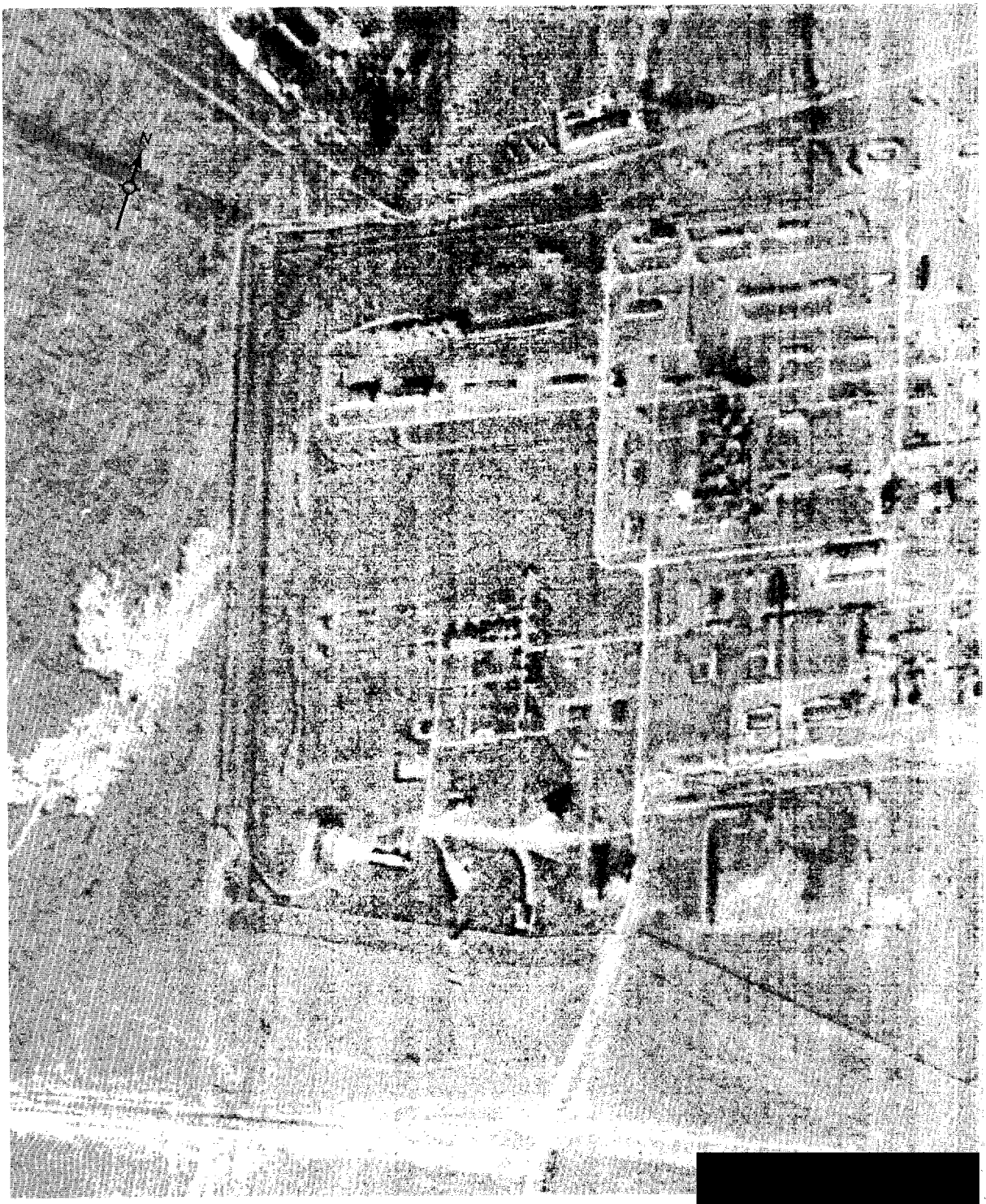

FIGURE 4. THE PROBABLE SOLID PROPELLANTS TEST FACILITY, [redacted]

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ITEM	LENGTH (FT)	WIDTH (FT)	ROOF COVERAGE (SQ FT)
1	85 x 55		4,675
2	90 x 55		4,950
3	195 x 60		11,700
4	185 x 55		10,175
5	55 x 55		3,025
6	110 x 35		3,850
7	115 x 90		10,350
8	130 x 70		9,100
9	290 x 95		27,550
10	170 x 85 x 85h		14,450
11	110 x 60		6,600
12	225 x 40 (overall)		9,000

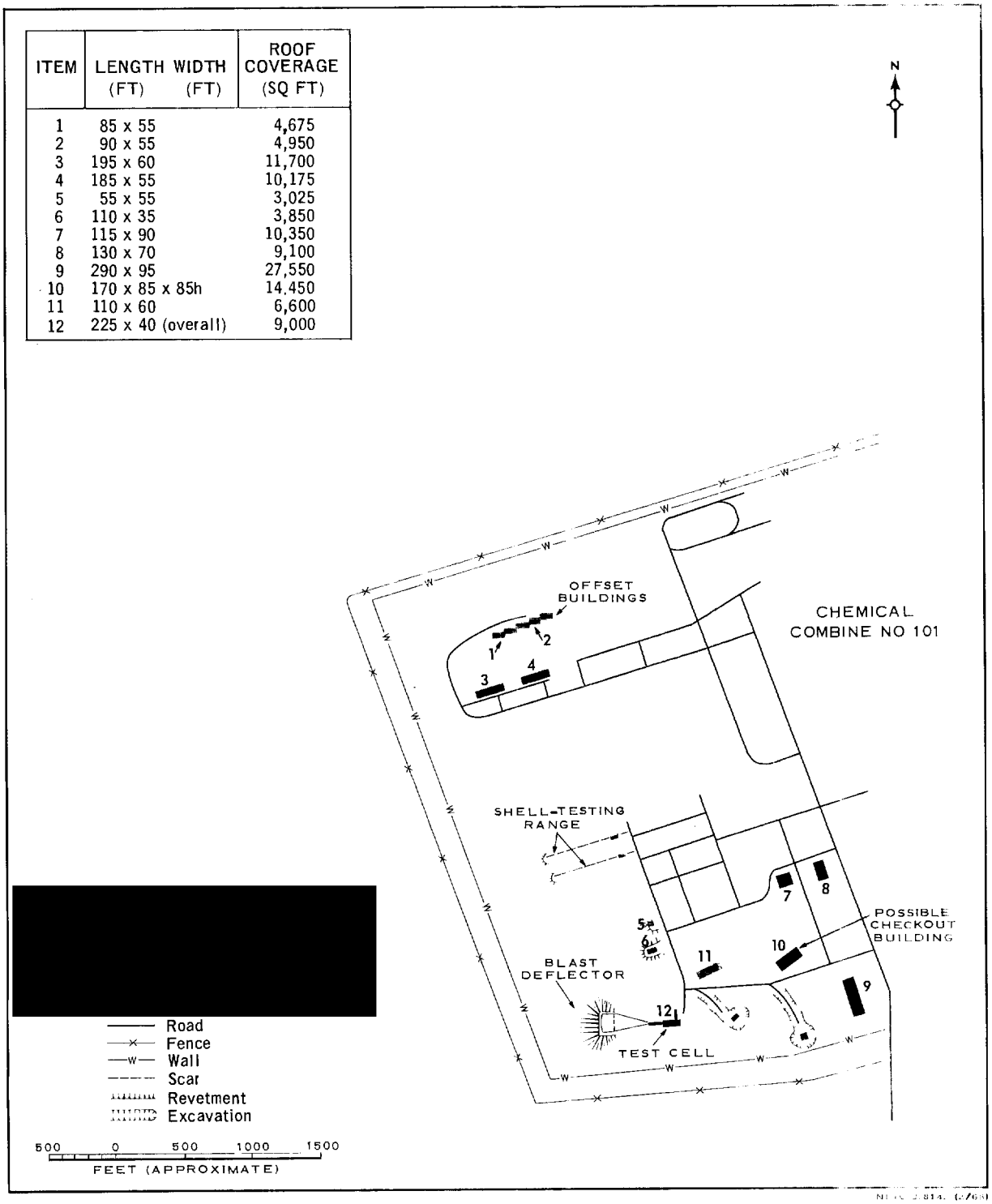

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FIGURE 5. LAYOUT OF THE PROBABLE SOLID PROPELLANTS TEST FACILITY.

25X1D the plant in [redacted] was considerably smaller than in
25X1D [redacted] as shown on Figure 2.

25X1D When seen on photography of [redacted]
25X1D (Mission [redacted] Chemical Combine No 101 had expanded on its north side to its present boundaries (Figure 2), and the Probable Solid Propellants Test Facility, though not yet complete, had been added to the west side. The [redacted]
25X1D [redacted] photography also revealed the existence of two associated areas, the Suspect Solid Propellants Manufacturing Area and an Explosives Storage Area, situated about 2 nm to the southwest (Figures 1 and 6). Also in
25X1D [redacted] the photography revealed an unidentified industrial facility near the northwest corner of the boundaries of the plant (Figure 2). This facility has continued to expand. There
25X1D are indications on photography of [redacted]
25X1D (Mission [redacted] that it handles large amounts of bulk materials, and it is connected to Chemical Combine No 101 by rail, but its specific function cannot yet be determined.

25X1D In [redacted] new production facilities were evident in the north-central portion of the plant area (Figure 2). Prominent here is a probable nitroglycerine manufacturing facility confined generally to a square area. It consists of 4 large revetted buildings and several associated buildings. Another facility, possibly for casting solid rocket motors, is located immediately northwest of the nitroglycerine area (Figure 2). This facility, which is still under construction, resembles others seen in explosives plants at Krasnoyarsk, Biysk, Sterlitamak, and Perm.* A third new facility is evident in the northeast portion of the plant (Figure 2). This is likely an expansion of the original probable cellulose production facilities which are located in this area.

*Detailed PI reports on these installations are currently in preparation under NPIC Project N-863/64.

SUSPECT SOLID PROPELLANTS MANUFACTURING AREA

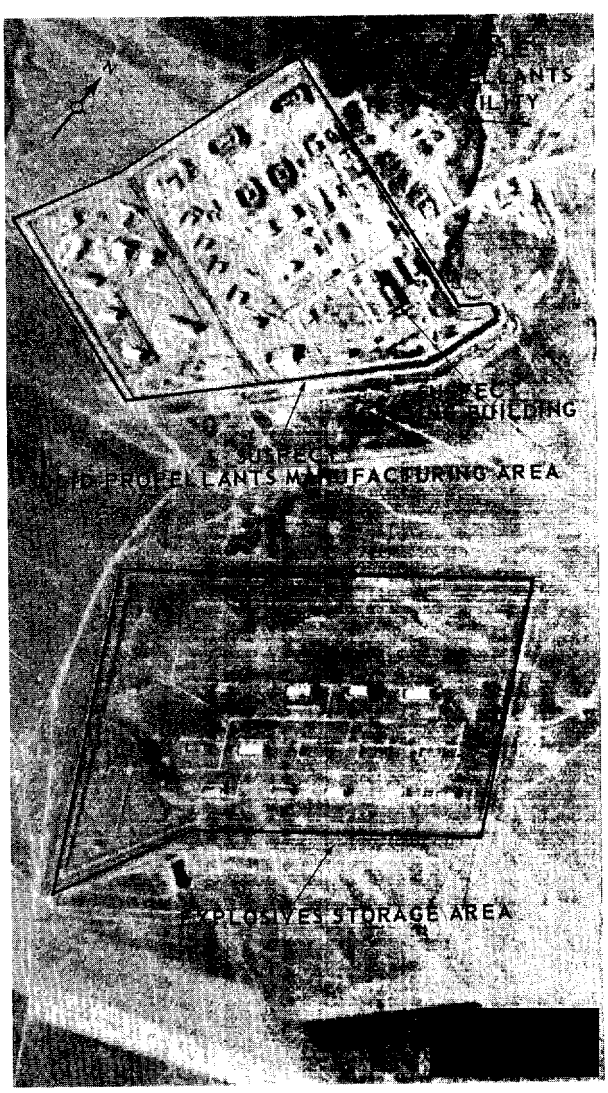
The Suspect Solid Propellants Manufacturing Area is situated about 2 nm southwest of Chemical Combine No 101 with which it is connected by rail. It consists of 2 continuous-flow production lines, a large multilevel building suspect as a casting building, and numerous processing, storage, and curing buildings (Figure 6). The manufacturing process probably begins in 3 rectangular revetted buildings in the northwest side of the area. Conveyers or pipes connect these buildings to 2 heavily revetted square buildings from which similar conveyers or pipes lead to 2 unrevetted rectangular processing buildings. These 2 buildings are connected by a conveyer or pipe to an unrevetted rectangular building which appears to be the end of the continuous flow. 25X1D

25X1D The installation did not exist in [redacted]
25X1D When first seen on poor-quality photography of [redacted] it contained
25X1D 7 buildings and was delineated by roads and fences. By [redacted]
construction had begun on most of the major buildings. As of [redacted]
the major buildings appeared to be complete or nearing completion, but there is doubt as to whether or not the facility was in full production.

No definite function or capability can be assigned to this manufacturing facility at this time. It is situated apart from the original plant and apparently does not duplicate any of the production facilities there, and it has been constructed during the same time span as similar suspect facilities at Biysk, Perm, Krasnoyarsk, and Sterlitamak; these facts suggest that this manufacturing facility may produce a new specialized explosive or a propellant for solid propellant rocket motors.

EXPLOSIVES STORAGE AREA

This facility immediately south of the Suspect Solid Propellants Manufacturing Area (Fig-



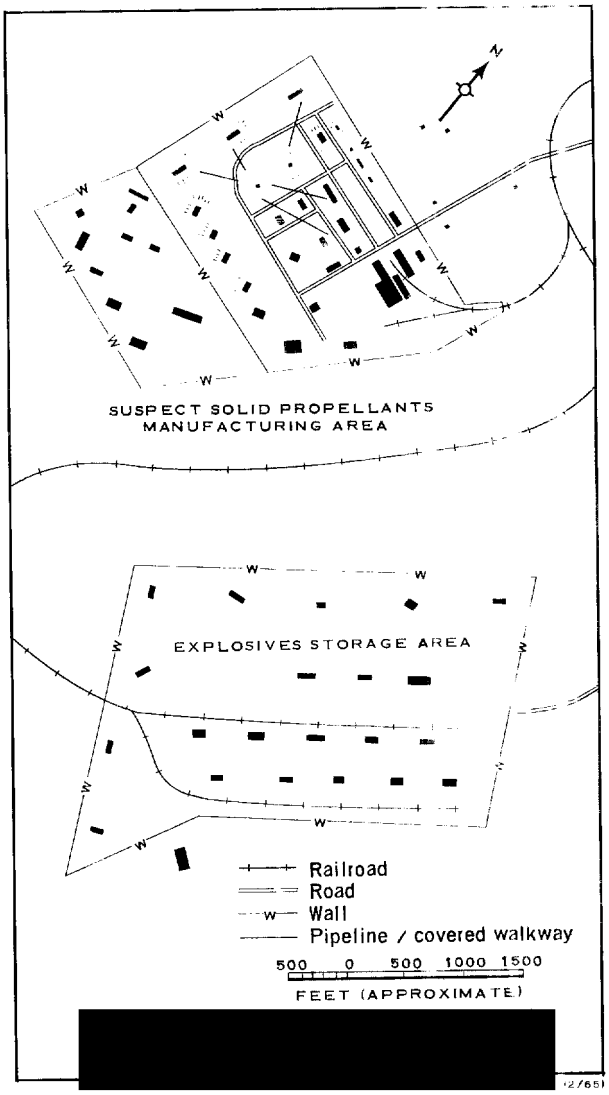


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FIGURE 6. THE SUSPECT SOLID PROPELLANTS MANUFACTURING AREA AND EXPLOSIVES STORAGE AREA.

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ure 6) also was absent in [redacted]. When first seen in [redacted] it consisted of a secured area containing probably 10 revetted and 8 unrevetted storage buildings. Photography of [redacted] and [redacted] revealed a new large unrevetted building outside the secured area on the south side, but it did not appear to be a part of the Explosives Storage Area. In [redacted] 3 more revetted storage buildings were evident within the secured area, and a rail spur to the Explosives Storage Area was under construction. The total of 21 buildings remained unchanged in [redacted] and the rail spur appeared to have been completed.

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REFERENCES

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PHOTOGRAPHY

[redacted]

MAPS AND CHARTS

SAC. US Air Target Chart, Series 200, Sheet 0234-24A, 1st ed, Mar 59, scale 1:200,000 (SECRET)

RELATED DOCUMENT

NPIC. R-287/63, *Probable Static Test Facility, Kamensk-Shakhtinskiy, USSR,* Nov 63 (TOP SECRET RUFF)

REQUIREMENT

CIA. C-RR4-81,679

NPIC PROJECT

N-863/64 (partial answer)

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